

Serial Number 09/553,108 Filed April 20, 2000
Amendment dated April 6, 2004
Reply to Office Action of February 9, 2004
Attorney Docket No. GJH-0017 (P1998J0107C)

REMARKS

Claims 5 and 24 have been cancelled because their contents have been incorporated into claims 1 and 22, respectively.

Applicants have amended Claims 1, 22, 31, and 32 to add the limitation that the distillate fuel compositions have a T95 point of from 363 to 374°C. Support for this amendment can be found in Table 1 on page 17 of the instant specification.

Applicants have also amended Claims 1, 22, 31, and 32 to include the limitation that the distillate fuel has a total aromatics content of about 25 to 35 wt.%. Support for this amendment can be found in original Claims 5 and 24 as filed, and page 14, second paragraph of the instant specification.

Applicants request that the Examiner enter all amended claims in order to place this application in condition for allowance or in better form for appeal.

FIRST REJECTION UNDER 35 U.S.C. 103(a)

Claims 1-3, 5-21, 31 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over United States Patent Number 6,150,575 Angevine et al. ("Angevine").

EXAMINER'S POSITION

It is the Examiner's position that Angevine teach diesel fuel having good ignition qualities, good combustion emission performance, and good low temperature characteristics. Such a fuel is characterized as having a cetane number of at least 45, a total aromatics content of 10 to 15 wt.%, a polynuclear aromatics content of less than 11 wt.%, and a sulfur content of not more than 50 ppm. The Examiner points out that Table 3 of Angevine discloses preferred compositional parameters for the fuel and that Table 4, Example 1 teaches a diesel fuel having 14 wt.% total aromatics, 0.6 wt.% polynuclear aromatics, 13 ppm sulfur, an initial boiling point of 183°C, T10 point of 225°C, and a final boiling of 360°C.

The Examiner states that the instant claims are directed to compositions comprising "about 20 wt.% aromatics," i.e. the claims include compositions wherein the

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total aromatics are less than 20 wt.%. Accordingly, the Examiner takes the positions that it should have been obvious to one having ordinary skill in the art at the time the invention was made to increase the amount of aromatics in the diesel fuel taught by Angevine to a maximum amount of "about 20 wt.%" based on the expectation that such a diesel would have similar properties. The Examiner also takes the position that the claimed T95 point is obvious in light of Example 2 of Angevine.

APPLICANTS POSITION

Applicants respectfully disagree with the Examiner as it is their position that Angevine does not render obvious the instantly claimed invention. The instantly claimed invention, as amended, requires that the distillate fuel composition have a Total Aromatics concentration of from about 25-35 wt.%, as described in Claims 1, 22, 31, and 32.

There is no teaching in Angevine to suggest that the amount of Total Aromatics disclosed and claimed therein should be increased to the presently claimed range. Angevine discloses that the "board value" of Total Aromatics is less than 10, and that the "preferred value" is between 10-15, see Table 3 of Angevine. Table 3 also discloses an optimum value but gives no range. However, col. 4, states that "the observance of certain narrower ranges within the ranges described above may however lead to an enhancement of overall performance, an improvement in product economics or both. Suitable preferred ranges are set out in Table 3, using the same tests as listed in Table 2 above.", see Angevine col.4, lines 53-58. Table 2 of Angevine discloses a Total Aromatics content of between 10-15 wt.%. Further, all of the Examples contained within the Angevine patent are below 15 wt.% Total Aromatics.

Therefore, Angevine does not teach nor suggest that one should have a Total Aromatics content within the presently claimed range of about 25-35 wt.%. Instead, Angevine teaches that narrower ranges within the 10-15 wt.% Total Aromatics range would be beneficial. There is no disclosure that one should increase the range of Total Aromatics beyond 15 wt.%. The Examiner is requested to reconsider and withdraw this rejection.

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SECOND REJECTION UNDER 35 U.S.C. 103(a)

Claims 1-3, 6-9, 14-32 are rejected under 35 U.S.C. 103(a) as being obvious over United States Patent Number 5,976,201 Barry, et al. ("Barry").

EXAMINER'S POSITION

It is the Examiner's position that Barry teaches diesel fuels comprising straight runb distillates having an end point no greater than 300°C, a cetane number in the range of 55 to 60, a specific gravity not greater than 0.83, a sulfur content not greater than 0.1 wt.%, and an aromatics content of 18 to 25%. The Examiner also states that the final end point of these fuels is held below 315°C and preferably below 300°C.

The Examiner states that although Barry does not disclose a specific fuel having all of the presently claimed characteristics, it would have been obvious to arrive at the instantly claimed invention.

APPLICANTS POSITION

Applicants respectfully disagree with the Examiner, as it is their position that Barry does not render obvious the instantly claimed invention. The instantly claimed distillate fuel compositions, as amended, have a T95 point from 363 to 374°C.

Barry states at col. 2, lines 33-44 that it is important to limit the boiling point of the distillate fuel compositions disclosed therein to below 315°C and preferably below 300°C, as pointed out by the Examiner. As stated above, the instantly claimed distillate fuel compositions, have a T95 point from 363 to 374°C, thus providing for a final boiling point outside of that disclosed by Barry.

Thus, since Barry teaches that it is an important feature of the invention that the distillation of the fuels disclosed therein be limited to a final boiling point below 315°C and preferably below 300°C, one would not have been taught to explore distillate fuel compositions having T95 boiling point ranges as high as is presently claimed.

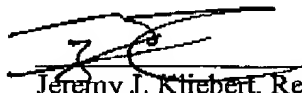
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The Examiner is requested to reconsider and withdraw this rejection.

Based on the preceding arguments and amendments, the Examiner is requested to reconsider and withdraw all rejections, and pass this application to allowance. The Examiner is encouraged to contact applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted:

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